West Lake Landfill Superfund Site, Bridgeton, Missouri

EPA Region 7 is committed to ensuring that the public, and the environment, is protected from the radioactive contaminants at the West Lake Landfill Superfund Site.

EPA bases its decisions on valid, scientific data, which this agency shares with the community. At the West Lake Superfund Site, EPA Region 7 has collected air, soils and groundwater samples and analyzed that data for various compounds, including radionuclides, volatile organic compounds and landfill gases. EPA toxicologists and scientists thoroughly evaluate that data. In addition, scientists from the State of Missouri have sampled the air at the site, which is reviewed by the Missouri Department of Health to look for indications of potential short term health impacts.

Based on this body of scientific evidence, EPA Region 7 has concluded that the conditions at the site do not present the kind of threat to human health that would require relocation of nearby residents at this time. EPA continues to evaluate all site related information with the goal to ensure that all appropriate response actions are considered and implemented consistent with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); the National Contingency Plan (NCP), and EPA Superfund program guidance across the entire West Lake Landfill Superfund Site.

EPA continues to work toward a final remedy to ensure appropriate response actions are taken to prevent exposures to radioactive waste at the site. EPA Region 7 is leading a comprehensive multi-agency effort, including the U.S. Army Corps of Engineers and the U.S. Geological Survey, to establish a final remedy for the site.

EPA is working closely with the Missouri Department of Natural Resources (MDNR) on their efforts to investigate and ultimately reduce the sulfur dioxide (SO2) emissions from the Bridgeton Landfill. We also continue to work closely with MDNR to monitor the subsurface smoldering event (SSE) at the Bridgeton Landfill and evaluate any potential impacts should the SSE come into contact with radiologically contaminated material (RIM).

EPA is directing the potentially responsible parties' work to perform additional investigation to locate the extent of RIM at the northern boundary of the North Quarry. This will aid in both the decision on an isolation barrier as well as the decision on the final remedy at the site.

Background

The West Lake Landfill Superfund Site is located in Bridgeton, Missouri. It is a 200-acre municipal landfill site consisting of the closed, state-permitted Bridgeton Sanitary Landfill and several older, unregulated landfill areas. The EPA placed the site on the Superfund National Priorities List (NPL) in 1990.

Two unregulated areas of the landfill, collectively identified by EPA as Operable Unit (OU)-1, became radiologically contaminated in the 1970s when 8,700 tons of leached barium sulfate (a uranium ore processing residue) were mixed with approximately 38,000 tons of soil and used as daily cover in the landfill operation.

The remainder of the site is included in Operable Unit 2, which consists of the closed Bridgeton Landfill (or Former Active Sanitary Landfill) and two others, the closed Demolition and Inactive Sanitary

Landfills, which are not contaminated with radiological materials. EPA is the lead agency for overseeing response actions at the Inactive Sanitary Landfill, as it closed prior to existing state regulations. The other two have been deferred to the Missouri Department of Natural Resources (MDNR) in accordance with their existing permits and post-closure requirements.

The selected remedy in EPA's May 2008 Record of Decision (ROD) is to contain the waste material in place through construction of an engineered landfill cover, and implementation of a long-term monitoring and maintenance program. Based on a high level of public interest in the OU-1 remedy, which contains the radiologically impacted material (RIM), EPA decided to conduct a supplemental study that evaluates full-scale excavation of the radiologically-contaminated landfill material with either off-site disposal or on-site disposal in an engineered cell.

The Superfund site's potentially responsible parties (PRPs) agreed to perform the supplemental feasibility study (SFS) under the existing administrative order on consent. The estimated costs defined for each alternative in the SFS report exceeded a threshold value, which triggered review by the EPA's National Remedy Review Board (NRRB) in early 2012.

The NRRB then provided recommendations for additional studies relating to the SFS Report. These include: evaluating additional groundwater sampling to refresh the data; conducting a groundwater fate and transport study, conducting a more detailed study of a partial excavation alternatives, evaluating alternative landfill cap designs; and conducting a more detailed analysis of potential treatment technologies for the RIM.

In June, 2012, EPA Region 7 tasked the PRPs to conduct these additional studies. The PRPs conducted four rounds of additional groundwater sampling in 2013-2014. EPA then tasked the U.S. Geological Survey (USGS) to help evaluate and interpret the new groundwater data. Once all of the additional remedy studies are complete, the SFS will be revised and EPA will release a new proposed plan for an amended remedy and will take public comment on this proposed plan.

At the adjacent Bridgeton Former Sanitary Landfill, starting in 2010 a subsurface smoldering event (SSE, or pyrolysis) occurred. The Bridgeton Former Sanitary Landfill is permitted and overseen by MDNR. It remains within the boundaries of the Superfund Site. The SSE began to receive extensive public attention in late 2012 when odors increased and generated complaints from local residents and businesses. The Missouri Attorney General's Office filed suit against the landfill owner (Republic Services) on March 27, 2013, alleging violation of a number of Missouri environmental laws. The State of Missouri is requiring Republic Services to actively monitor the movement of the SSE and develop contingent measures to address the SSE.

Most recently, MDNR issued a Notice of Violation to the Bridgeton Landfill for potential violations of the Clean Air Act for failure to obtain a Prevention of Significant Deterioration (PSD) permit for SO2 emissions from flares at the landfill. The state is requiring the landfill owner to submit additional air data, perform pilot studies of potential control technologies, and submit a permit application if necessary.

EPA continues directing the PRPsto ensure all of the additional remedy related evaluations (as recommended by the NRRB) are completed and meet the highest scientific standards.
EPA continues coordinating with MDNR and the Missouri Attorney General's Office on the state's actions at the Bridgeton Landfill.